



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): MACKAY and MOLINARO
Title: FORMING SOLDER BALLS ON SUBSTRATES
Serial Number: 10/643,766
Filing Date: 18 August 2003

Commissioner for Patents
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Alexandria, VA 22313-1450

TRANSMITTAL

Enclosed herewith for filing is:

Transmittal

INFORMATION DISCLOSURE CITATION (IDC), 1 page
copies of 28 patents listed on the IDC

SUPPLEMENTAL INFORMATION DISCLOSURE CITATION (S-IDC), 2 pages

comment on submission

The IDC lists references cited during the prosecution of the parent case (09/273,517) and copies of those references are enclosed herewith. The S-IDC lists references which were disclosed by applicant in the parent case, and which are believed to be less relevant than those listed in the IDC, and copies of those references are not provided herewith (they may be found in the file of the parent case):

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Please indicate receipt, in any suitable manner, below:

THE PATENT AND TRADEMARK OFFICE ACKNOWLEDGES RECEIPT
OF THE FOLLOWING:

Applicant: Mackay et al.
Serial No.: 10/643,766
Filing Date: 18 Aug 2003
Atty: Gerald E. Linden
Atty Docket: Spheretek M6

Information Disclosure, Form PTO 1449 and copies of 28 references
Supplemental Information Disclosure, Form PTO 1449, no copies of references



INFORMATION DISCLOSURE CITATION
(PTO-1449)

PAGE 1 OF 1
SERIAL NO.: 09/962,007
FILING DATE: 9/24/01
APPLICANT(S): Mackay, et al.
Group: _____

U.S. PATENT DOCUMENTS

*		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	Filing Date
	A	6,293,456	09/2001	Mackay, et al. (parent case)			
	B	6,153,505	11/2000	Bolde, et al.	438	613	
	C	6,126,059	10/2000	Mackay, et al. (div of '487)	228	9	
	D	6,109,175	08/2000	Kinoshita	101	170	
	E	6,051,273	04/2000	Dalal, et al.	427	124	
	F	6,008,071	12/1999	Karasawa, et al.	438	115	
	G	5,988,487	11/1999	Mackay, et al. (parent case)	228	254	
	H	5,950,908	09/1999	Fujino, et al.	228	248.1	
	I	5,934,545	08/1999	Gordon	228	191	
	J	5,877,079	03/1999	Karasawa, et al.	438	613	
	K	5,842,626	12/1998	Bhansali, et al.	228	180.22	
	L	5,829,668	11/1998	George, et al.	228	254	
	M	5,806,753	09/1998	Bielick, et al.	228	248.1	
	N	5,782,399	07/1998	Lapastora	228	41	
	O	5,773,897	06/1998	Wen, et al.	257	778	
	P	5,759,269	06/1998	Cutting et al.	118	213	
	Q	5,667,128	09/1997	Rohde, et al.	228	49.5	
	R	5,658,827	08/1997	Aulicino, et al. ("IBM-2")	228	180.22	
	S	5,632,434	5/27/97	Evans, et al.	229	44.7	
	T	5,539,153	07/1996	Schwiebert, et al. ("HP")	174	260	
	U	5,492,266	02/1996	Hoebner, et al. ("IBM-1")	228	248.1	
	V	5,439,164	08/1995	Hasegawa, et al.	228	194	
	W	5,366,760	11/1994	Fujii, et al.	427	96	
	X	5,310,574	05/1994	Holtmann	427	58	
	Y	5,197,655	03/1993	Leerssen, et al.	228	254	
	Z	5,172,469	12/1992	Onda, et al.	29	762	
	aa	5,079,835	01/1992	Lam	29	840	
	bb	5,014,162	01/1991	Clark, et al.	361	412	

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Date Considered



SUPPLEMENTAL
INFORMATION DISCLOSURE CITATION
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U.S. PATENT DOCUMENTS

*		DOCUMENT NO.	DATE	NAME	CLASS	SUB- CLASS	FILING DATE
	A	5,536,677	7/96	Hubacher	437	183	
	B	5,535,936	07/96	Chong, et al.	228	175	
	C	5,480,835	1/96	Carney, et al.	437	189	
	D	5,460,316	10/1995	Hefe	228	39	
	E	5,449,108	9/95	Park	228	103	
	F	5,438,020	8/95	Grancher, et al.	437	183	
	G	5,395,040	03/95	Holzmann	228	254	
	H	5,388,327	2/95	Trabucco	29	830	
	I	5,381,848	01/95	Trabucco	164	102	
	J	5,372,295	12/94	Abe, et al.	228	123.1	
	K	5,346,118	09/94	Degani, et al.	228	180.22	
	L	5,307,983	05/94	Dudderar, et al.	228	180.22	
	M	5,268,068	12/93	Cowell, et al.	156	644	
	N	5,211,328	5/93	Ameen, et al.	228	180	
	O	5,206,585	04/93	Chang, et al.	324	158 P	
	P	5,137,845	8/92	Lochon, et al.	437	183	
	Q	5,118,029	06/92	Fuse, et al.	228	198	
	R	5,118,027	06/92	Braun, et al.	228	180.2	
	S	5,108,027	04/92	Warner, et al.	228	254	
	T	5,046,161	09/91	Takada	357	69	
	U	5,039,628	8/91	Carey	437	183	
	V	5,024,372	6/91	Altman, et al.	228	248	
	W	5,001,829	03/91	Shelhorn	29	840	
	X	4,953,460	9/90	Wojcik	101	129	
	Y	4,950,623	8/90	Dishon	437	183	
	Z	4,914,814	4/90	Behun, et al.	29	843	
	AA	4,906,823	03/90	Kushima, et al.	228	245	
	AB	4,898,320	02/90	Dunaway, et al.	228	245	
	AC	4,893,403	1/90	Heflinger, et al.	29	840	
	AD	4,856,185	08/89	Baumgartner	29	840	
	AE	4,763,829	08/88	Sherry	228	124	
	AF	4,655,164	4/87	Nelson, et al.	118	503	
	AG	4,622,239	11/86	Schoenthaler, et al.	427	96	
	AH	4,545,610	10/85	Lakritz, et al.	29	589	
	AI	4,523,712	06/85	Zado	228	207	



	AJ	4,412,642	11/83	Fisher, Jr.	228	173	
	AK	3,719,981	03/73	Steitz	29	423	
	AL	3,569,607	3/71	Martyak, et al.	174	68.5	
	AM	3,458,925	8/69	Napier, et al.	29	578	
	AN						

OTHER REFERENCES

	AO	WO99/01892	1/99	PCT publication	
	AP		1995	Ball Grid Array Technology, Lau	McGraw-Hill

Examiner

Date Considered